(New) A semiconductor package comprising:

a semiconductor die having first and second principal surfaces;

- a lead attached to the first principal surface of the die;
- a heat sink attached to the second principal surface of the die;

and

a nonconductive capsule encasing the die and at least a portion of the lead and the heat sink, opposite ends of the lead protruding from the capsule,

wherein said heat sink includes a rim enclosed by said capsule.

- 5. (New) The semiconductor package of Claim 4 wherein a notch is located on an underside of said rim.
- 6. (New) The semiconductor package of Claim 4 wherein a plurality of holes are formed in said rim.
- 7. (New) The semiconductor package of Claim 5 wherein said heat sink comprises a second notch, said second notch being enclosed by said capsule.
 - (New) A semiconductor package comprising:
 - a semiconductor die having first and second principal surfaces;
 - a lead attached to the first principal surface of the die;
 - a heat sink, at least a portion of a first surface of the heat sink being attached to the second principal surface of the die;

and

a nonconductive capsule encasing the die and at least a portion of the lead and the heat sink, opposite ends of the lead protruding from the capsule,

wherein a plurality of holes are formed at the first surface of said heat sink.

- 9. (New) The semiconductor package of Claim 8 wherein the plurality of holes are located in a portion of the first surface of said heat sink that is not adjacent to said die.
- 10. (New) The semiconductor package of Claim 8 wherein the plurality of holes are located both in a first portion of the first surface of said heat sink that is not adjacent to said die and a second portion of the first surface of said heat sink that is adjacent to said die.

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11. (New) The semiconductor package of Claim 10 wherein said heat sink includes a rim enclosed by said capsule.

12. (New) The semiconductor package of Claim 11 wherein a notch is located on an underside of said rim.

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